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HOME EDUCATION OF INDIAN FEMALES.

One of the most discouraging features relating to female education in India is the small proportion of girls pursuing their studies beyond the Upper Primary stage. About two per cent. of the total number of girls under instruction are in the secondary stage, which means that in this vast country only between 6,000 and 7,000 girls receive an education up to the standard represented by the Middle School examination. The amount of knowledge which a pupil acquires when in the Upper Primary stage, is, as is well known, extremely meagre, and no pupil who stops at this stage, can be in any way looked upon as having received a liberal elementary education. But the proportion of girls who reach even this stage is ridiculously low not amounting to more than eight per cent. It will be seen therefore that the majority of girls under instruction leave school just at the time when they begin to be taught the rudiments of knowledge. If the education given in schools is to prove of substantial benefit, it must of necessity be supplemented by a liberal training in Indian homes and zenanas.

Christian Missions have of course been foremost in pushing on Zenana education in this country. In connection with almost all the leading Missions there has been organized an efficient system of home education and it is a notable fact that the missionary character of Zenana education seems to arouse little or no opposition. Complete statistics are not available as regards the work of

the various Zenana agencies, for the Mission bodies that carry on the work, excepting a few, furnish no returns to the Educational Department, as they receive no aid from Government. Only three societies are in receipt of aid in the Presidency, the Free Church Mission, Madras, the Church of England Zenana Mission under Miss Oxley and the American Mission, Guntur, under Miss Drydan. We are of opinion that the Madras Government should aid Zenana societies more liberally and relax the restrictions as regards levy of fees, curriculum of studies, &c. In Bengal the Mission agencies engaged in Zenana work are in receipt of a monthly grant of not less than Rs. 1,200 a month.

It is encouraging to find that the home education of girls is being taken up by secular agencies. The Madras Branch of the National Indian Association has been carrying on this work in the city of Madras for several years past with much success. We are also glad to find that the recently started branch Associations at Coimbatore and Salem have made Zenana education an important part of their work. We should like to see similar branches opened at Cuddalore, Vellore, Nellore, Palghat, Calicut, and Tellicherry and other important towns where Mission agencies are not at work. The success of the work of the National Indian Association in this direction will of course depend a great deal on the encouragement and support given by the intelligent and educated section of the native Community. We would only in conclusion remind our native friends of the words of Mr. H. B. Grigg :—

"The status of women cannot be materially improved until more attention is paid to their education, and notwithstanding the difficulties of your task if you only enter upon it with a spirit of true earnestness you will prove for yourselves the truth of the Spanish proverb, 'Time and I are a match for any man.'"

EXAMINATIONS AS TESTS OF KNOWLEDGE.

It is an admitted fact that the educational policy adopted in this country is merely a reproduction, with hardly any adaptations, of that followed in Great Britain. Our readers are aware that there is a strong movement at home against the sacrifice of education to examination. Here, too, as in England, examinations are considered the chief end of life. They seem to be looked upon as

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having an *opus operatum* merit for both the examiner and the examined. Examinations instead of coming in to aid education, have grown and hardened into the master of education. We do not wish to say anything here as regards the dangerous mental pressure and the misdirection of energies and aims which the present system involves, but we wish to consider briefly what exactly is the value of examinations as tests of knowledge. A consideration of this subject is very appropriate at present as the examination season has just commenced in right earnest in this Presidency.

There can be no doubt that, in the absence of other tests for finding out the real capabilities of a man, the test of examinations is the safest we can rely upon. Knowledge we know is one of the conditions of fitness for special employments, and examinations may be one of the best means of ascertaining whether the necessary knowledge has been acquired. At the same time, it must be remembered that examination is not by any means the sole test of the possession of real knowledge. Of course, if by knowledge is meant a definite quantity of book learning which a student has acquired in a definite quantity of time, then we are right in looking upon examinations as real tests of the intrinsic capabilities of an individual. But the term happily has a wider and a more appropriate application. It is certainly very easy to obtain a superficial idea of the leading principles of a subject, or to cram into one's head in a short space of time the requisite points which are likely to be of use in an examination, but it is totally a different thing to get at the root of the subject, to know its fundamental truths and above all to be able to apply them to the realities and duties of life.

We shall just notice here a few causes for the insufficiency of examinations as real tests of knowledge. In the first place there is much that is accidental in the success which attends examinations. The real student takes care to have a fair idea of the whole subject, his is not that loose method of study by which knowledge is acquired simply with a view to creep through an examination. He pays equal attention to all that is of real value in the domain of knowledge. On the other hand most students read as if their sole object were to secure a pass in the examination. They cram up a few "points" which are likely to appear in an examination and they often meet with success. Nothing is more surprising sometimes

than the results of an examination. Our expectations are entirely upset. A very bad student often happens to secure a better place than one who is really better.

Want of self-confidence is another cause for the failure sometimes of the very best students. A sort of indefinable dread comes over many students on first presenting themselves for an examination in spite of the efforts they have made conscientiously to acquire a proper knowledge of the subjects prescribed for it; a fear lest they should fail to obtain the approval of the examiners. This feeling acts on nerves which have already been overtaxed by hard study, and produces a sort of tension which prevents their doing justice to themselves. As a general rule, the ill-prepared students are those who enter the examination room with an overweening confidence in themselves.

Sometimes many good students fail on account of the shortcomings of the examiners. The questions perhaps are couched in ambiguous language. Very often the examiner tries to show to the poor candidates all that he knows about the subject instead of testing the knowledge of the students. Sometimes also the examination papers are so meagre that the candidate has no scope for the exercise of his intelligence.

One of the most important things in an examination is the selection of examiners. They ought to be thorough masters of the subjects of which they are appointed examiners and much time and attention ought to be given to preparing the question papers. The questions should be framed in the plainest language and should not, from any ambiguity in the wording, be liable to misconstruction.

We have here pointed out some of the causes that tend to lessen the importance of examinations, but the evils are not such as to be entirely irremediable.

SENSE-EDUCATION.

It is not my purpose to enter into an elaborate discussion of the principles which should govern the training of the senses, and the education of the mind through the medium of the organs of sensation. I desire simply to point out what seems to me a serious defect in our present system of education; leaving it to those better qualified by experience to decide whether the defect should or should not be supplied.

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It is now generally recognised that education is not altogether a merely empirical art. It is admitted that to be real *education*, it must be based on science; that to fill a pupil's mind with knowledge, ignoring the structure of that mind and the laws by which it is governed, is a process equally irrational in its operation, and useless or even mischievous in the result which ensue from it. The psychologist tells us that all mental growth is ultimately dependent upon sensation. The consequent need for the cultivation and harmonious development of the senses has been recognised in all the primary schools of the world. This recognition has been largely aided by the immense impulse given to infant education by the labours of such men as Froebel and Pestalozzi. The Kindergarten system, which is the result of those labours, is now fairly established as the orthodox method of infant education. Imperfect as "Kindergarten" may be at present, the cumulative experience, of years will tend to its improvement; and increased delicacy in the system, coupled with growing skill in the teachers who follow it, may be trusted to produce sterling results as far as the infant school is concerned. But what of the needs of elder scholars?

In schools above the primary what do we find? I think I am within the mark when I say that sixty per cent. of our school work is confined to the imparting of instruction, avowedly as such. Of the remainder, which should be devoted to the training of the intellect, a very large part goes to the acquisition of a certain amount of merely mechanical skill in the solution of recognised problems in Mathematics and kindred subjects, or to the stereotyped drill in arranging words which passes current under the name of the study of language. The result is that the true end of education is being lost sight of and its methods vitiated. The complaint is often made that Indian students are lacking in originality. I think that one reason for this want is not far to seek without going into precise details of curricula. We know that the order of development of the mental faculties proceeds from sensation through perception and imagination to the highest faculty—that of thought.

It would seem, therefore, that the cultivation of sensation is the basis of all future development. This cultivation, as I have said, receives a very fair share of attention during the earliest years of the child's life. But on quitting the infant school the child, is at once plunged into a course of instruction in which the sound principles followed out in the Kindergarten are totally abandoned. It is at once introduced to subjects which require either memory or the power of abstract reasoning. It is of course highly essential that these important faculties should be extensively cultivated, and that that cultivation should begin at as early

a stage as is consistent with nature. But *for the rest of his life* the scholar receives no further training of his senses than that which he obtained in the infant school. It seems generally assumed that, as sensation is the basis of perception and therefore ultimately of imagination, the training of the senses is only necessary to arouse the as yet dormant powers of the infant in these two directions, and that the moment that these powers are aroused and brought into conscious operation the powers of sensation have attained their utmost development and have performed all the functions of which they are capable. That is, as I heard it once expressed, "Kindergarten is all very well in its place—and that place is the nursery." I hope to show that at any rate as regards the *principles* of Kindergarten this is a mistake.

It must be remembered that by far the most important faculty that the teacher has to cultivate is the imagination, either in its reproductive or its constructive aspect. But the extent of the imagination is absolutely limited by the number of precepts possessed by the scholar. The present state of affairs leads the child to depend in after-life upon such precepts as have been imparted to it in its infant school course, together with such as it may gather for itself in after-life by the *undirected* exercise of its own senses. But I maintain that the cultivation of the senses and hence the addition of new precepts should proceed *pari passu* with that of the higher faculties, or rather should be the preliminary to each fresh advance made in the cultivation of those faculties. I have frequently had complaints made of the stupidity of scholars, their dulness, their incapacity to realise vivid and truthful description, when on analysis this stupidity, this incapacity, resolved itself into a simple lack of the percepts necessary to the formation of a mental image, or the existence of those in so dim a form that the mental image produced by the effort of recombination was of necessity blurred and indistinct.

The truth of this is recognised to some extent in the teaching of Geometry, though I *have* known a first lesson in Geometry consist in committing to memory a long series of definitions!

If we are to train our scholars to anything approaching real originality of thought, we must sedulously cultivate the power of imagination which is the only basis of originality. But the power of forming mental images is conterminous with the extent of materials out of which those mental images are to be built up. This again depends upon the extent and accuracy of the faculty of sensation. I think therefore that it must be admitted that, as a necessary preliminary to all *real* advancement in mental power, the powers of sensation must be continually exercised and the mind receive continually fresh material on which to build up its conceptions. This will of course involve systematic training of the senses

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even in the middle and high schools. This may seem at first a startling innovation to those who are accustomed to estimate the value of education numerically by percentages and passes; but even from their standpoint it is possible that increase in the power of sensation with all that it implies, would mean an increase in that power of reproducing what has been learnt which is the only valuable quality imparted by examination.

(To be continued.)

THE AGRICULTURAL DEPARTMENT.

Many of our readers are, probably, not aware that the Agricultural Department has, of late, been issuing a series of very interesting and instructive bulletins on agriculture and the allied subjects. The series has already reached its thirteenth number, and includes among the subjects treated of such important themes as, viticulture, indigo, paddy, tobacco, cotton, fodder, cattle supply and the storage of seed grain. One of the latest that has been sent us is a very able paper on Fields of Demonstration by Monsieur Gornet, Minister of Agriculture, Paris. The paper is a very suggestive one, and we only hope that the local Government and the Agricultural College will work out the suggestions it contains.

History points to the fact that the high place which India once held in the list of nations was mainly due to her agricultural and industrial supremacy. It is because her agricultural and industrial work is put into the shade by the improved methods pursued in other countries that India now fails to compete with other nations in these fields. The only possible and certain remedy is to give the people a thorough, practical and scientific education in Agriculture and the manufacturing Arts.

We shall here indicate what we think should be done towards attaining this object. Viewing it from an educational point of view, let us see the utility of acting on the suggestion thrown out by M. Gornet in the paper before us. The necessity for placing the study of Agriculture on a scientific basis was only felt a few years ago in this country. The establishment of the local Agricultural College was a step in the direction. Of late, however, the Agricultural College has not (probably because of the constant tinkering it has undergone) given us results which are assuring. It is a surprise to ourselves, as it will be to many of our readers, to learn that in a professed College of Agriculture the study of Agriculture and the lecturership in that subject are kept in the back-ground. Agriculture is, if we are not mistaken, a subject in which there are very few authoritative text books. The lecturer has to wade through a mass of periodical literature dealing with the subject, gleaning all the useful information he can and then systematising it in

his lectures. This is a very arduous task and we should like to see the salary of the lecturer on the subject increased and his being forbidden to hold any other post, as it is sure to affect the careful preparation of the subject and consequent lecturing to the class.

Having referred to the position assigned to Agriculture in our only college devoted to the subject, we shall quote a few extracts from M. Gornet's paper, wherein he dwells very clearly on the teaching of it as a science. He says, "I attach serious importance to the diffusion of progress, even into the most remote corners of our country. To do this it is necessary to afford examples in such a way as to strike the cultivator's mind and to enable him to put his finger upon what can be obtained by the application of discoveries which have been so fully confirmed by experience. It is for this reason that I invite you, having first made yourselves thoroughly acquainted with the conditions belonging to the cultivation of each Agricultural district of your "department" to organize *Fields of Demonstration* where you will exhibit the results of the improvements you propose to accomplish." He also says, "it is necessary, in fact, that light should be diffused everywhere; that the cultivators of all the "departments" should themselves be able to have before their eyes the improvements of which their land is susceptible and to profit by all the discoveries of modern science and practical agriculture which are capable of useful application." We need hardly point out to our readers the truly scientific aspect of education which M. Gornet insists upon in his suggestions in this paper. A true knowledge of any subject cannot be attained unless one studies it in a scientific way by learning the principles and the applications of those principles. Before the study is pursued, however, it is necessary to feel that the study will be useful and can be turned to practical account. If this is wanting it is useless studying, for it will not enable the learner either to appreciate the full advantage of the subject he studies or turn it to any useful use. It is this that is mostly required in India. If there is one thing above another that our cultivator has to learn, it is this—he has to unlearn his prejudices against scientific culture and to grasp the utility of a really methodical and rational study of the subject. Once prove to him the utility of the new method over the old one, only show him the reason of the superiority of the new and he is sure to adopt it.

M. Gornet considers that despite the improvements effected in his own country the field for exploration is very wide, and that the improvements to be introduced are endless. He believes that to improve Agriculture the introduction of a good selection of seeds, of the adoption of the best varieties of plants and in particular of cereals with large out-turns; of the methodical use of chemical manures and of improvements

appropriate to the different species of soil and cultivation are essentially necessary. In an essentially agricultural country like India where large industries and factories are at a considerable discount, it is all the more necessary to devote greater attention to Agriculture, on the lines above indicated.

As yet we see not many signs of an awakening of agricultural activity, the healthy outcome of a scientific system of agricultural education. The graduates of the College of Agriculture have yet to turn their knowledge to practical account. We cannot, before concluding, but invite the attention of the Government to the necessity there is for the introduction of some Fields of Demonstration as suggested in the paper referred to, and for placing the study of Agriculture on a more stable footing and allowing the professorship of the subject to remain an independent one, capable of allowing the holder thereof to busy himself in investigations in a subject that has hitherto received but scanty treatment in this country.

NEWS AND NOTES.

LOCAL AND INDIAN.

The Special Primary Examination and the Higher Examination for Women will begin on Monday, 8th December.

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Government has sanctioned the establishment at Salem of a Government Salary Result School for Muhammadan girls.

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Arrangements are being made at Saidapet on a small scale for the opening of a hostel for students of the Teachers' College.

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The Principal of the Teachers' College notifies that S. Mayandi Achary, a student of the College, who owes the Government Rs. 70-8-1, has absconded.

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The arrangements for the reorganization of the Teachers' College, Saidapet, are almost complete. The Muhammadan Normal School at Triplicane forms an integral part of the institution.

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The Board Normal School, Chingleput, will be closed shortly and a Primary department for Hindu teachers in connection with the Teachers' College will be opened probably at Triplicane.

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Within the last 10 years the number of girls under instruction in the Madras Presidency has risen from 29,282 to 98,344. The most remarkable progress is under Muhammadans, the number having risen from 700 to 10,364.

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The Standing Orders Committee have sent in their report to Government through the Director. The Director has, we understand, submitted his remarks. The final orders of Government will be passed at an early date.

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Miss Pratt of the Presidency Training School for Mistresses now superintends the Hobart Muhammadan Girls' School. The latter will probably be amalgamated with the Presidency Training School for Mistresses.

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The Director of Public Instruction notifies, for the information of Managers of Schools, that during the year 1891-92 results grants from Provincial Funds will be paid in all the districts of the Presidency at the maximum rates fixed in the Grand-in-Aid Code.

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The Commissioner for the Uncovenanted Civil Service Examination has notified that the examination for regulating the first appointment and subsequent promotion of Sub-Assistant Inspectors of Schools prescribed in Government Notification of the 15th June 1887, No. 44, will be held on the 29th January 1891 and two following days at the different centres.

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The Lower Secondary Examination scheme is, we hear, now before Government and will probably be published by the end of the month. The subjects of examination will be the same as those of the Middle School Examination, but it will be conducted by Committees appointed at different centres in the same manner as the Primary School Examination.

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One of the pupils of the Nazareth Girls' School, N. Mariayal Ammal, who passed the Matriculation Examination last year, has been employed as Head Mistress of the Government Girls' School at Madura. Two other Matriculate girls from this school are at work in Madras, one at the Government Training School for Mistresses and one in a Mission school.

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During December, the Inspector of Schools, Western Division, will examine the following schools:—Cherpulcherri Middle School, Pálghat Basel German Mission Middle School, Betetnad, Chávakàd and Kottayi Board Middle Schools, Kolangòd Rajah's High School, Koduvayur and Alathur Board Middle School, Peruvemba School, Ponáni Basel German Mission Middle School.

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The Secretary of State has approved of the recommendations of the Government for constituting two grades of Inspectresses of Girls' Schools, one on Rs. 500 rising to Rs. 600 by annual increments of Rs. 20, and another on Rs. 400 to Rs. 500. During the absence of Mrs. Brander, Miss Carr will probably act as Senior Inspectress. In that case Miss Govindurajalu will be gazetted Junior Inspectress.

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The Director of Public Instruction notifies, for the information of Heads of Colleges and Schools, that a new Code of Educational Rules, which will apply to all Government, Aided and other institutions seeking recognition for Public Examinations, and which includes a revised general curriculum leading up to the Upper Secondary and Matriculation Examinations, is under the consideration of Government and will probably be promulgated early in January 1891.

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At a meeting of the members of the Madras Physical Training and Field Games Association held on 20th November, the two following important resolutions were brought forward and carried, in each case, by a majority :—

The Rev. Dr. Miller proposed and Mr. H. B. Grigg seconded the proposition, "That no one be allowed to compete for the Cricket Trophy who is not a member of a College Club." Mr. Grigg proposed and Mr. Vijiaranga Mudelliar seconded the proposition, "That the following resolution be moved at the general meeting to be held next month, viz. :—That Government be asked to undertake the training of stipendiary students ; to make provision for the admission of private students ; to arrange for the periodical examinations of students for the granting of certificates ; and to purchase from the Association the gymnastic apparatus now in use at the Park Gymnasium.

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They do strange things in Bengal, if the Director of Public Instruction of that Presidency has not been gulled. This is what he writes in his latest Report on Public Instruction, p. 46. "In a letter that has lately reached me, the tactics pursued by rival schools are vividly described. Canvassers may be seen all over the district busily engaged in recruiting students for the schools whose cause they advocate. . . It has made the students unruly, disobedient, and disrespectful in the extreme. Discipline cannot be enforced among them. . . . The good students have learned to sell themselves to the highest bidder, and those of the Entrance class fetch a good price in the market. Every year in the month of August the agents of the mofussil Entrance schools come to secure 'good sure students' (*i.e.*, those who will surely pass in

the Entrance examination) from the town schools, by a promise of free board and lodging, free studentship, boat-hire, and something in cash to meet Puja expenses." "It would have been better for this place," the writer concludes, "had these schools not existed at all."

LITERARY AND GENERAL.

Prof. Sayce has resigned the Deputy Professorship of Comparative Philology at Oxford.

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The Rev. M. G. Glazebrook, High-Master, Manchester Grammar School, has been offered and has accepted the Headmastership of Clifton College.

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Mr. R. H. Quick's new edition of his *Essays on Educational Reformers* published by Longmans, is worthy of the attention of all educationists. No School Library can be considered complete without this book. The London *Journal of Education* of November, has a long and appreciative review of the work and rightly calls it "a delightful book."

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Circuit school inspectors in the Prussian province, Silesia, have introduced the practice that young teachers employed in the lower grades of a school shall be obliged to give two lessons per week in upper grades. The principals of the schools are asked to report upon the results of this practice, the good intention of which is obvious.

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Miss Jane Harrison will give a course of four lectures at Cambridge during the present term upon "Greek Art, especially Vase-painting, in relation to Greek Mythology." The lectures will be delivered in the Museum of Classical Archæology, Cambridge. This is, we believe, the first occasion on which a lady has received such recognition from the University authorities of Oxford or Cambridge.

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Nonconformity (says the *Daily Chronicle*) is well to the front both at Oxford and Cambridge. Mr. A. S. Peake, who has been elected to the vacant Theological fellowship at Merton College, is Hebrew tutor at the Nonconformist Mansfield College. The Secretary of Mansfield informs the *Christian World* that High Church Fellows on the governing body of Merton voted for Mr. Peake,—an admirable illustration of the superiority of learning to sectarian shibboleths. At Trinity College, Cambridge, all the four Fellows just elected are Nonconformists, two of them being Wesleyans. Oxford and Cambridge are really "republics of learning," where the best places are steadily going more and more to the best men.

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"WHAT Shall Our Children Read?" is the title of a paper read before the Saratoga meeting of the New York State Teachers' Association, by George E. Hardy, of this city. The subject discussed is one of great importance. Its central thought is found in the words of Stanley Hall: "The school has no right to teach how to read without doing much more than it now does to direct the taste and confirm the habit of reading." Mr. Hardy is right in saying that "the great masters of thought must be known, not by reading selections from their works and then leaving them, but by a continuous reading of their works in course." He emphasizes the fact that a single first-rate book read till its flavour is caught, raises the level of the whole mental and moral character, and that the ability to read great books is a faculty to be acquired, not a natural gift.—*The School Journal* (New York).

REVIEWS AND NOTICES OF BOOKS.

EXAMINATION PAPERS ON TRIGONOMETRY. By GEORGE H. WARD, M.A. London: Geo. Bell and Sons, 1890.

This publication contains a number of miscellaneous problems in Trigonometry, arranged in 120 papers of 7 questions each. Answers are not given. There is also a selection of questions on book work. The collection should be useful to masters setting College papers.

ELEMENTARY SCIENCE LESSONS, Standard I. By W. HEWITT, B.Sc. London: Longmans, Green and Co., 1890.

This book contains a very elementary series of lessons mainly on common objects. Thus the Second Lesson is on a school slate, the objects required, in addition to the slate, being a slate pencil, a pocket knife, a burning candle, and a sheet of glass. A series of experiments are given to show the qualities of the slate, and its uses are explained. The language is clear, and the knowledge imparted is definite if simple.

ARITHMETIC FOR BEGINNERS. By J. BROOKSMITH, M.A., LL.B., and E. J. BROOKSMITH, M.A., LL.M. London: Macmillan and Co., 1889.

There does not seem to be any particular reason for the issue of this work, except that it is introductory to the higher work by one of the joint authors. The matter is good, but the type and the solid unleaded blocks of composition are very trying to the eye. We notice as a novelty that the pages containing the answers are perforated, so as to be easily detached. This is very convenient for boys who wish to keep a page of answers up their sleeve. Except in a couple of pages on the metric system, the authors, as usual, recognise no money, weights, or measures but those of England.

GEOMETRICAL DRAWING FOR ART STUDENTS. By L. H. MORRIS. London: Longmans, Green and Co., 1890.

This book contains a very large amount of matter compressed into a very small space. Larger type and a larger page would have improved the work in appearance and rendered its study less trying to the eyes. In addition to definitions and other subsidiary matter, it contains 361 problems in plain and solid Geometry. The left hand page, as the book is opened, contains the letterpress of from six to eight problems, the right hand page contains the diagrams. There are chapters on scales and their uses and there are also a few interesting and suggestive pages on Geometrical patterns and tracery. The figures are well drawn and well engraved. The work is arranged to cover the syllabus of Geometry in the Arts Students' course at South Kensington.

HYDROSTATICS FOR BEGINNERS. By F. W. SANDERSON. London: Macmillan and Co., 1889.

This is a capital little book by one who knows his subject and knows how to teach it, two qualifications for text-book writing that are frequently wanting. The subject is not commonly taught except as certain branches of it are intruded into other subjects. It is also a difficult subject, in which Todhunter has not shown the way. This probably accounts for the paucity of elementary books on it. The present one combines laboratory teaching with class work, following up every chapter with a series of quantitative experiments to be performed by the boys themselves in the work-room, and not merely fired off by the lecturer for the sake of display. The book, in remarkable contrast to Messrs. Brooksmith's Arithmetic, is printed in Messrs. Macmillan's well-known 'best' style.

XENOPHON'S HELLENICA, Book I, with Analyses and Notes. By the REV. LAUNCELOT D. DOWDALL, LL.B., (DUB.), B.D., (OXON), &c. Cambridge and London: Bell, 1890.

This is the latest volume of the annotated Cambridge Texts. The Rev. Mr. Dowdall is evidently an exceptionally accomplished Greek scholar. That he was eminently qualified for the task of editing a Greek author is evident from the fact that he is a Triple Gold Medallist of his University, and that he has written on Persia a Greek Essay the perusal of which led Nikephoros Kalogeras, Archbishop of Patras, and "Professor of Theology" in the University of Athens, to declare that in reading Mr. Dowdall's Essay, he seemed to have the *Anabasis* of Cyrus in

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his hands. In editing and annotating this little book, Mr. Dowdall has done a great service to the junior student, but can hardly be said to have found work worthy of his sound scholarship, and critical acumen.

SURVEYING AND LEVELLING FOR STUDENTS: by J. E. A. D'Cruz, A.C.E., B.C.E., Engineering College, Madras. Price 1 Rupee.

This is an excellent little book and the author deserves every encouragement. He has put the book well within the reach of all desirous of learning surveying and levelling by pricing it at *one rupee*. As to the object with which the book was written we will let the author speak for himself:—"The following pages were written with the object of providing students preparing for the Surveyor's test, the Higher Examinations in Science and Arts, and the Upper Secondary Examination with a cheap manual on Surveying. I have adopted the catechetical form, as best suited to the mental calibre of the generality of such students. The principles of the subject may be picked up from the prefatory set of questions and answers with which each chapter begins; and the 'Questions from Examination Papers' will, it is hoped, furnish sufficient subsequent excercise."

MILTON'S L'ALLEGRO, IL PENSEROSO, ETC., with Introduction and Notes. By W. BELL, M.A., Professor of Philosophy and Logic, Government College, Lahore. London: Macmillan and Co., 1889.

If this book had reached us in the year of its publication we should have been able to recommend it to the students throughout this Presidency who are to present themselves for Examination in *L'Allegro*, *Il Penseroso*, and *Arcades* at the F.A. examination of the University of Madras on the 15th instant. The arrival of the book is just one year too late to be of any immediate service here. Besides the three poems mentioned above, the volume contains the *Lycidas*, *Sonnets*, and other poems—in short all Milton's poetry from 1630 to the Restoration, with the single but remarkable exception of the *Comus* which, in Macmillan's Indian Series, forms a separate volume.

Although we observe a few omissions, and some explanations with which we do not agree, yet we also observe some valuable original work and have no hesitation in saying that this little volume, taken all round, is a good one, and will be found by experience to be a safe guide for Indian students who wish to master the minor poems of the great Puritan bard.

We have, during the past month, received the following books and magazines :—

BOOKS.

Warren Hastings, by Captain L. J. Trotter in the 'Rulers of India' series, Oxford, at the Clarendon Press, 1890; Chronological Outlines of English Literature by Frederick Ryland, London, Macmillan and Co., 1890.

The Ninth Annual Report of Her Highness the Maharani's Girls' School, Mysore; Report on the Operations of the Agricultural Department, Madras Presidency, for the official year 1888-89, Madras.

The Female Authors of England; A Lecture delivered at the Young Men's Christian Association Rooms by Geo: Maddox, B. A.

MAGAZINES.

India's Young Folks for November; *The Educational Times*, (London) for November; The New York *Teacher* for September; *The Journal of Education*, (London) for November; *The Journal of Education*, (Boston) for October; *Secunderabad Parish Magazine* for November; *The Christian College Magazine* for November.

CORRESPONDENCE.

To the Editor of the Madras Journal of Education.

AN APPARENT CONTRADICTION.

SIR,—In the following passages, the former of which is taken from Macaulay's Essay on *The War of the Spanish Succession*, and the latter from his *History of England*, the Historian seems to contradict the Essayist.

1. "But the Infanta (Maria Theresa) had, at the time of her espousals, solemnly renounced, in her own name, and in that of her posterity, all claim to the Succession. *This renunciation had been confirmed in due form by the Cortes.*"

2. "How, it was asked on the other side, (of Austria), can the fundamental laws of a monarchy be annulled by any authority but that of the supreme legislature. The only body which was competent to take away from the children of Maria Theresa their hereditary rights was the Cortes. *The Cortes had not ratified her renunciation.* That renunciation was therefore a nullity; and no swearing, no signing, no sealing, could turn that nullity into a reality."

The italics are mine. Is there any way of reconciling the two statements? I shall be obliged by your enlightening me on this point.

MADURA,
30th October 1890.

IGNORAMUS.

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A PROBLEM OF THE FUTURE.

We have much pleasure in reprinting from our esteemed contemporary the *Hindu* the following paper by Mr. Mir Shujaet Ali, Fellow of the University of Madras, and Sub-Collector of Salem.

Providence predestined the future of India when it placed the country under the protection of England, that is, under the influence of modern civilisation. Modern civilisation is the triumph of advanced thought over the defective knowledge of the past ages. The progress of a country, material and moral, follows in the wake of the advance of thought or, in other words, of the advance of science. What science has done for Europe and America, it is sure to do elsewhere sooner or later. Whether it shall be sooner or later depends on whether the progress of science is or is not beset with obstacles. Where it has to combat ignorance and prejudice deep-rooted in society, its progress must necessarily be slow. And who can deny that ignorance and prejudice have driven their roots deep into the Indian soil? Progress in India is then a very slow process, so slow that persons who are prone to take a pessimistic view of their surroundings have often been alarmed. But there can be no denial of the fact that progress has commenced; and it is but reasonable to prognosticate that it will gradually grow and expand. If we are interested in the progress of our country, and if we have any feelings of patriotism we must, each according to his opportunity, endeavour to accelerate the speed of progress. How can this be done? By removing the obstacles; by removing ignorance and prejudice; that is, by spreading knowledge—*true* knowledge; by publishing the victories of modern thought; by educating the people in the achievements of modern science; by raising the average intelligence and knowledge of the people to the level of that of the advanced nations of the world. The treasure of modern science and arts is contained in the literature of the nations that have most contributed to their improvement, and the avenue most accessible to India, leading to this great treasure-house of knowledge, is English literature. Thanks to Macaulay and Metcalfe and the generous policy of the British Government, that we are now able to declare that this avenue is open to us. This literature is already become familiar. Hundreds, nay thousands of young men have been educated in it. But their number is only a drop in the ocean of the Indian population. Our aim, therefore, ought to be to make the English literature our own, our national literature. There are two ways of doing it. One way is to unlearn our Vernacular and learn

English, to make English the language of our home; the alternative is to reproduce what is good, what is worthy in the English literature, in the Vernaculars of India, to improve the Vernacular literature so as to draw into it what distinguishes the present literature of England, France and Germany from the literature of these countries as it existed in the 16th century.

2. Whichever alternative we may adopt, English literature in its own form must continue to influence Indian leaders of thought; the thinking men of India must continue, for a long future, to think in English or at any rate to be informed and enlightened through the medium of that language. English education must continue, and all that can afford it should be encouraged to acquire it.

3. But we must sooner or latter decide whether English should be made to supplant the Vernaculars or whether the latter should be advanced. The sooner we decide the question, the better. I must at once tell my readers that I do not possess that false patriotism which strives to preserve and maintain whatever has been ours. If it is at all possible, I will be the foremost man to do all in my power to make English the universal language of India. But is English destined ever to become the language of the masses? Will the Indian villagers gather under the proverbial banian-tree and chat in English? Will the Indian mother-in-law chide the daughters-in-law in English? Will even people curse and quarrel in English at toddyshops? Will even the street-bard sing in English, the tale of *Chanchorta*? Will even the Purohit bless in English? What does History point to? The Normans failed in England; the Arabs in Persia, and the Sanscrit speaking Aryan to a large extent in India. The Romans did not fail so significantly in Gaul and Spain. History and sociology have not as yet attained the position of the "exact sciences." It is not my habit to dogmatise. I must therefore leave my readers "to think, observe and decide." For myself when I think of the enormous numbers to be reached, when I think of the tenacity with which even unwritten languages cling to the people in India, my heart sinks and despair overpowers me. The future may be pregnant with brilliant achievements; but the present offers but a gloomy prospect. I should, for myself, prefer to be content with the slow method of improving the Vernaculars. If this is what ought to be done, we must at once set about to do it. What are the means?

4. My methods run in the direction indicated below. Do not teach English in the rural tracts except as an optional subject. In all *country* Middle Schools and High Schools make the Vernacular the medium of all instruction instead of English as is now the case. Make a high *scientific* Vernacular education attractive by making it more or less

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eleemosynary and also perhaps compulsory, by offering rewards such as opening in life and by such other inducements. To accomplish this we want, in the first place, competent teachers and suitable text-books. Money which makes many things can easily make these.

5. If we educate the people in the Vernaculars we must provide them with a high class Vernacular literature: this I propose to do by translations and adaptations from the English literature.

6. Thus is the battle to be fought, and it can only be fought when the sinews of war—money,—are present. Are they present? Or how are we to create them? The same agency of education as at present exists with its present prospects of accretion of strength can and will provide schools, teachers and text-books, if the national system of education is moulded after the fashion I have pointed out. But, schools, teachers and text-books alone connot attract pupils; there must be something besides, and that something is the market-value of the education offered. Measures should be devised to create a sufficiently attractive value. What these measures may be, I can, for the present, only beg the creative genius of our energetic Director of Public Instruction and the public spirited intelligence of the leaders of society to think over and formulate.

7. As regards the improvement of Vernacular literature: Shall I exhort my educated countrymen and call upon them to employ their pens? There may be and are persons competent and willing. But where is the appreciative *reading* public to pay for their labour? Are we to wait until the demand shall arise? I am afraid we should then wait to the end of time. The formation of a reading public and the advance of literature must go—if history can teach us any thing—hand in hand. Then shall I call on the patriotism and philanthropy of India to loosen the purse-strings? I may, I must confess to our shame, as well cry in the wilderness. The only willing ear that I believe I may effectively reach is that of Mr. Grigg. I hope and trust that I shall not ask him in vain if I can convince him that the improvement of Vernacular literature is an item of education entitled to a liberal grant from the Provincial and Local Revenues.

ASSOCIATION OF WOMEN TEACHERS.

The first annual meeting of this Association was held on Saturday evening, in the premises of the Presidency Training School for Mistresses, Egmore, Mr. J. B. Bilderbeck presiding. There was a good attendance of European and Eurasian Lady Teachers, and several Hindu ladies pursuing the same occupation.

Miss Keely, the Secretary and Treasurer, read the First Annual Report, as follows :—

The Association of Women Teachers in Madras was inaugurated by a general meeting of Teachers, Managers of Schools, etc., called by Mrs. Brander in a notice circulated to those in Madras engaged in educational work. The meeting took place in the Presidency Training School for Mistresses on Saturday, November 2nd, 1889; the number of ladies who promptly responded to Mrs. Brander's invitation showed a lively interest in what was said to be the purpose of the meeting.

Proceedings were begun in the usual way. Miss Keely was requested to take the chair, and Mrs. Brander, in a stirring address, stated the objects of the Association and called upon all present to promote those objects, by uniting together for mutual advantage and improvement, as well as kindly sympathy and encouragement. She spoke of the good that has been, and is being, done by similar Associations in Great Britain and Ireland where those connected with the education of the young meet together to talk over matters connected with their work, to exchange thoughts and opinions, and to consult on the best way to promote generally the welfare of teachers, and to ensure as far as possible by co-operation and mutual help the success of that work.

A good beginning was made on the day of the inaugural meeting. Mrs. Brander's address had such an effect that forty-six of those who were present, came forward to enter their names as members.

A President, Vice-President, Secretary and Assistant Secretary were then chosen, and the Association of Women Teachers began its existence.

The officers elected were—

President	...	Mrs. Brander.
Vice-President	...	Miss Keely.
Secretary	...	Miss Oxley.
Assistant Secretary	...	Miss Jupe.

The following proposals were then made, put to the vote, and carried :—

(1) That the year of the Association should date from the first Saturday in November 1889.

(2) That a library and museum should be formed (Mrs. Brander, Mr. and Mrs. Barrow contributing the first books).

It was announced that a meeting would be held on Friday the 8th, to arrange the plan of action. Accordingly for the second time the Association met; this was in the Doveton Girls' High School. The rules were then drawn up, and a programme prepared for proceedings during the year.

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We have much pleasure in giving a report of the work of that year, which has been a very successful one. Our members now number 72.

Twelve meetings have been held during the year when four papers were read and four model lessons given. Three of the meetings were social ones and the remaining one was a business meeting, to discuss the advantages of registering the Association.

The subjects of the papers were "Preparation" by Mrs. Brander, December 14th, 1889; "Teaching, a Noble Calling," Miss Keely, February 8th, 1890; "Singing," by the Rev. A. J. Jones, July 12th; "Class Room Department," Rev. J. T. Lawrence, M.A., October 11th, 1890.

Model Lessons,—

The Eye	...	By Miss Rajagopaul.
The Light House	...	,, Bernard.
Reading	...	,, Shanmugam.
Arithmetic	...	,, Patterson.

A vernacular branch has, by special request, been formed, but at present only six members have joined.

The Association has been registered under Act No. XXI. of 1860, for which a fee of Rs. 50 has been paid. The books in the Library now number 41, besides journals and other periodicals. Some of these are very valuable. The museum too has started well, the shells, specimens, natural curiosities as well as some of the books in the library were presented by members or friends of the Association.

These facts, the good attendance at the monthly meetings, the lively interest shown by the members in the papers read, and the lessons given, the kindly notice taken by the press, especially the *Madras Times* and the *Madras Journal of Education*, all seem to indicate that there is a useful and important career before the Madras Association of Women Teachers. We have only to add the warm thanks of the Association to those ladies and gentlemen who have kindly assisted to make the meetings interesting and profitable by their papers and their model lessons and also for their kindness in lending rooms for the different occasions.

Miss Keely announced that she had contemplated having some kind of entertainment on the occasion, but she felt that the work before the Meeting was quite enough in itself. She, however, hoped that on the next occasion something of the kind suggested would be provided.

The Chairman observed that he felt very much pleasure at the opportunity afforded him of expressing the delight he took in the movement which had so recently been inaugurated for the formation of an Association for Women Teachers. An Association such as this could not but be full of benefit to those for whose interests it was chiefly

intended, for the emulation of spirit in the cause of education generally, for the welfare of individual teachers and education generally, and also for the wellbeing of the community at large. Such an Association not only provided its members with opportunities for enjoying the pleasures of associating with cultivated minds, but it also provided many valuable opportunities which were very necessary indeed to the teacher, if he or she had to maintain a professional vitality. In meeting frequently, as they did, exchanging ideas and comparing experience, they gave and received benefits and thus they improved their general professional effectiveness and gradually recognised a very important fact, that professional teachers must move as well as live. He, or she, must not be content to simply vegetate, and this vegetation, he was afraid, was a custom teachers in India were very apt to generate. An Association such as this, provided teachers with the necessary entertainment. There was a debilitating and soul-grasping isolation experienced by the great class of teachers, in this country, especially women teachers; and they had in this Association that which he believed women, especially, found most essential to their happiness—sympathy. This Association met with the encouragement of people engaged in the same profession as themselves, and they all knew that fellow-feeling made people wondrous kind. An Association of teachers was calculated to awaken in the minds of teachers, a recognition of the fact that not only were they members of a noble profession, but that they should demand for themselves a sort of definition and recognition of their position as teachers. If a nation was made up of many individuals and those individuals were what the teachers made them, it was self-evident that it was largely the result of the efficiency of the teachers; and it seemed therefore absolutely necessary that the teaching profession should merit, and was entitled to, some sort of legislative recognition and protection, such as was to be obtained by most of the nobler professions. He heartily welcomed the formation of such an Association, which, if not in India, was certainly the first movement of the kind in this Presidency. An organisation such as this would perform a sort of pioneer or missionary work, and would serve as a noble example to the whole of the teachers throughout the Presidency, to go and do likewise. His experience of educational work in this Presidency, lay chiefly in connection with University work, and the education of the other and lower sex, but his experience pointed to the conclusion that education in this Presidency would never be what it ought to be, whatever Government might do in the way of schools and grants, until something was done to raise the status and self-respect of teachers. With regard to the profession of native teachers, unfortunately, this was a very chaotic profession. He rejoiced

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that the women teachers of Madras should have formed themselves into an Association which would be of national benefit, and set an example throughout the Presidency. He trusted therefore that the members of the Association would do their best to render it an entire success. They must remember that the benefits they would derive from membership with the Association were not simply individual, but that they were all serving the great missionary cause. All honour to the wise heads and willing hearts of those ladies who first formed the Association, and of those ladies who had taken upon themselves the onerous duties of office-bearers. The members of the Association must remember that success depended on their, one and all, working in unity, and individual efforts to support their officers, and the Secretary and Treasurer, in the work they had so disinterestedly undertaken. The Meeting that day, he believed, marked the close of the first year, of their first anniversary, and on a perusal of the annual report, which Miss Oxley had prepared, and which Miss Keely had read, he must congratulate them on having a very healthy and active infant. It would be almost impertinence for him, a young man, perhaps, to talk of the education of an infant, especially in the light of a little piece of poetry which, with Miss Keely's leave, he would quote from her address on "Teaching, a noble calling" (delivered before the Association on February 8th, 1890). Miss Keely quoted from Mrs. Browning:—

"Women know
The way to rear up children,
They know a simple, merry tender knack
Of tying sashes, fitting baby shoes,
And stringing pretty words that make no sense
And kissing full sense into empty words."

Mrs. Browning's authority was against him, and he dare not, therefore, open his mouth to express any suggestion of his with regard to the education of this infant; still he did not believe it could be placed in better hands than those who had charge of it. There was, however, one line in Mrs. Browning's extract read, which hardly applied to this Association, where she said

"And stringing pretty words that make no sense."

The papers in the appendix showed that stringing many pretty words had made sense. The year's report showed that 76 members had joined the Association; Miss Keely had told them that there had been more accessions; the number of meetings also showed that a considerable amount of interest had been evinced in the success of the institution, and he was also very glad to notice a few other features to which he would call attention: first the institution of a special library and museum. As

regarded the museum, he presumed it was intended to be located in that building, and that it would follow the lines of those old collections which formed part of the Kensington system. With reference to a museum of that kind, he thought he might throw out the suggestion that it might be adapted in such a way as to be a movable one and sent about on its travels to the various schools of Madras, and, if necessary, to those up-country. Miss Keely had told him the suggestion he had made had already been anticipated, so that he was not as wise as he had intended to be. Another feature was, that an attempt had been made to open a sort of vernacular branch, but he was sorry to see that only eight ladies had joined. He trusted that the Association would make an effort to attract the attention, and obtain the support, of the Sunday School Teachers scattered about the mofussil. His experience of mofussil life was that many poor teachers were practically strangled in the schools to which they were attached; and often experienced an intolerable position, as for instance a young lady who had received an European education found very few to sympathise with her in her position, and that many of the ladies of the Town were inclined to look rather askance upon her a life of isolation was very trying to them and if something of the nature of correspondence classes, a system of correspondence, could be started, it would have the effect of stimulating them to take much higher interest in their work. He fancied he was not exceeding the limits of strict accuracy when he said that much of the success of the Association was due to two ladies, one of whom was away on well-earned leave; the other lady, who was exceedingly well-known, was one who had been largely identified with the cause of education in this Presidency, whose character was exceedingly well-known, and, he supposed, as they were known to them all, it was not necessary for him to mention the names of the ladies to whom he referred and with whom he had been acquainted for a large number of years. He was sure they would all agree with him that he ought not to sit down without having acknowledged how much the Association owed to the ladies to whom he had referred. The work of the Secretary also was of a very onerous character, as everyone knew who had had experience of such an office; and he trusted the Association would remember what he had said and do all they could, on their part, to second the work of the officers who had set such an excellent example. (Applause.)

Miss Keely was sure she only expressed the wish of all the members of the Association in thanking Mr. Bilderbeck for his address. Miss Oxley and she were very much obliged to him. She felt pleased with the proposition as to a system of correspondence between teachers, which was a very excellent one. She had felt quite touched when Mr. Bilderbeck spoke of the isolated position of teachers in the mofussil and that was

first what they desired to mend. They desired to become social and friendly with others as well as to help them on their work, that all might feel they were sisters. There was no jealousy one of another; they did not want to feel that some were doing better than others, but that they were all doing their work. Their aim was to work together for good. It was impossible for teachers to teach in a happy way if they did not feel happy themselves; and meeting in a social way, consulting on doubts and difficulties, conversing on pleasant topics and otherwise recreating the mind, must tend to promote general cheerfulness and a happy frame of mind. In conclusion, she thanked Mr. Bilderbeck for having taken the Chair on the occasion.

The Rev. Mr. Feast, in response to an invitation from Miss Keely to offer a few suggestions, observed that he was not prepared to have been called upon to offer even one remark. He had been revolving in his mind to thank the Committee for having invited him and he did think, as a visitor, he was privileged in being present at this annual meeting. For his own part, he sincerely admitted the privilege he had enjoyed and could only wish the Association every success. As to suggestions, he did not know that any occurred to him. He was very glad to hear Mr. Bilderbeck say this should be a pioneer movement and, as the ladies had made this start, he trusted the men would associate together in the same way. There was too little, he thought, of the social elements in education. Teachers did not meet together; with regard to the Clergy they had other general meetings but, certainly, they had not the opportunity of meeting together, or of exchanging thoughts as often as they should do, and whilst they had other resources which made up, in great part, for this, they must deplore that amongst teachers there was so little opportunity of meeting together; and he certainly thought an Association of this kind was calculated, in every way, to do good to the teachers, and it could not but do immense good to the schools under their care. It certainly was true, as Miss Keely had said, that unless a teacher was happy it was utterly impossible that she could go through her work happily, or with anything like real success; therefore, let the teachers cultivate in every way true feelings, so that they could come to their children fresh. He had the happy privilege of meeting with his children, from time to time, and certainly that was the happiest part of this work. Those present were all engaged in class work and, however humble the position of a teacher might be, let her feel that it was an honourable profession. He attached the highest importance to this and to his school and felt even more interest in it than he did in his work in the Church; he would far rather be speaking to his children than to his people, and he thought those present would understand the feeling that

prompted him in that. The children were the nursery of the Church and the promise of the nation and unless they were in good hands woe be to the nation. He would not detain them with any further remarks. Miss Oxley had kindly asked him if he would be prepared, during the next year, to read a paper, and, in the absence of more experienced hands, he would be happy to do so. He had had little experience, but that experience he would very gladly place at their benefit; but he thought the teachers themselves ought to be encouraged to speak at these gatherings more than, he fancied, they did. Miss Keely had not asked any lady of the Association to speak, and there must be some amongst them who could; he urged the necessity of cultivating a habit of speaking on occasions of this kind. They had his most hearty congratulations, and he thanked them for the opportunity afforded him of attending that meeting.

The Rev. J. T. Lawrence, also, at the invitation of Miss Keely, spoke a few words. He thought the teachers, in these days, had a great deal more to encourage them than they had in the days when he went to school. The younger children were then sent there to be kept out of the way, whereas now they were sent to school for the purpose of learning. He was much surprised at the difference between the system of education of children in India and England. Children in India went to school with the object of getting all they could out of their teachers, which made the lot of the teacher brighter and her life the happier.

The proceedings then terminated.

THE EYE IN SCHOOL.

The close student, of whatever age, imperils his eyesight more or less, no matter how favorable the environment.

Near-sightedness is produced artificially on an enormous scale among the little ones at school. It increases according to class grade,—according to increased use of books. In German schools Cohn found that more than one-half the pupils of the highest class were near-sighted. For this appalling state of things the German alphabet may be in some degree responsible, the *N* and *R*, *B* and *V*, and the *b* and *y* looking more alike than any two Roman letters. "Under all circumstances, the constant effort made to accommodate the eye to the usual reading distance causes a permanent contraction of delicate muscles and increases the curve of the lens. As the tendency to myopia, through this changed anatomical structure, is likely to become hereditary, it is of importance that authorities pay special attention to the subject, or

the sight of the race will become impaired in the ratio of increased use of books; or, popularly speaking, of education, as this use and abuse of books is so often called. Open-air exercise does much for the eye, the effort at accommodation of sight being then at the minimum. Possible preservation of normal eyesight is one of the many charms of country life, where outdoor work invites a wide range of vision. Activities concerned with minute objects, and the circumscribed vista of city streets induce a condition of strain that is more or less constant. It is fortunately possible to piece out defective eyesight with spectacles, which are a medicine and a practical cure for ametropia. At the same time the necessary use of glasses excludes their wearer from certain careers, notably where the lives of others are concerned, as for instance, positions on the Metropolitan elevated railroads. No glasses are allowed, and with reason. While it is out of the power of man to do more than patch up and prop up defective sight, much may be done to prevent and arrest impairment of vision. And, surely, the ounce of prevention can scarcely be more wisely expended! A few rules strictly observed in the school would greatly lessen the danger. The following directions for preserving sight will bear frequent repetition:

Select the proper print for children. *Never give a child a finely-printed book.* Reading matter in diamond, pearl, agate, or nonpareil is unfit for children's eyes.

Abolish study by insufficient light always, and by artificial light as far as possible. Children who are at all near-sighted should be seated nearest the windows. Cross lights,—that is, lights from both sides of the room,—are intolerable, and really criminal. There may be windows in the rear and on one side, but never any in front. It is against the law in Germany to put windows in both sides of a schoolroom. The windows should be large, and not obscured by trees or buildings. Books must be held at a proper angle, so that rays of light from the printed page do not enter the eye obliquely. The head must be held nearly erect in studying and writing, and the desk arranged to make this practicable. Frequent change of position is necessary, the easy posture usually being the one of least strain. Encourage and train the pupil to look off the book frequently, to change the focus of sight, and to close the eyes at times. The eye must be directed to some object that can be clearly seen, as a picture, motto, or decoration in some part of the room. The greatest damage to the student's eye is the constant effort to focus the printed page.—*Woman's Cycle.*

ORGANIZATION AND SYSTEM *versus* ORIGINALITY AND INDIVIDUALITY.*

Organization and system are but means to an end. They form the machinery for working the schools, and within proper limits are a necessity. They are of great value in the formation of correct and exact habits of action. The extreme elaboration of system gives symmetry and uniformity, but it is at the expense of strength and growth. It produces smoothness, prevents friction, attains exactness of detail, but it crushes out all life, energy, freshness, and enthusiasm. The child is absolutely forgotten in the worship and homage which is paid to system. But this is not always so. The teacher should have not freedom to teach, so much as freedom to grow; not freedom from restraint, but liberty to develop into a skilled workman through the inspiration of thought. The teacher with brains is the great need of our schools of to-day.

The one thing we ought to respect in the child's education is his individuality. This is an energy, self-active, self-directive, persistent, beyond and separate from the animate body. It embraces not only the power to know, but the capability to feel and will. It attends every step of physical, mental, and moral growth, is in every action, word, and heart-throb. Individuality dawns upon the child first as existence, then as power, then as duty, then as determination. A man of intense individuality is usually a man of strong convictions, tenacious of purpose. His expressions leave no doubt as to his meaning; his ideas are clear and sharp.

The great teachers of the world have been thinkers. We cannot test their work by any system of examinations, however skilfully devised. We must know how the results have been attained, how much time has been wasted, what faulty processes of instruction are covered under the beautiful finish of the exterior, how much energy and strength have been dissipated.

Freedom is not license. Originality is not eccentricity. Rules and regulations may be so framed as to aid the teacher in his work. It is right that the teacher should know the wishes of those in authority, who are directly responsible to the people for the welfare of the school. Originality, to be a help, must be natural. A man cannot safely make a fool of himself before children. They are imitative. Unless there is behind a man's originality a moral earnestness, an undisguised honesty of purpose, an open uprightness of action

*Abstract of a paper read at the National Educational Association.

the man of strong individuality is the most dangerous person who can be put in charge of a school.

The welfare, the growth, and the development of the child is the object of the school. The individuality of the teacher should seek to know, to penetrate, to encompass the individuality of the pupil. Whatever comes between the teacher and the pupil, whatever tends to thwart, to divert, to limit this exchange of thought, works an injury beyond remedy.

The teacher must not deny to the pupil the freedom of thought which he claims for himself. He must not be a master of methods, alone, but of principles, so that his individuality may not overshadow, but rather stimulate the individuality of the child. A man should always be able to interpret his own actions, motives, and purposes. The child must be encouraged to do this same thing, for this alone will awaken within him a consciousness of his own resources.

It is as natural for the child to think as it is for the tree to grow. Give the child the same freedom to think and observe that the street Arab has, only guide him with skill. Take advantage of his curiosity and wonder. Take advantage, too, of what he already knows. Teach him wisely, and he will startle you by his progress.

The system should be broad enough to let the individuality of the teacher act through the individuality of the child, to develop moral intuition, to cultivate the virtues, to strengthen the will, to render him strong and vigorous in thought, noble in purpose, hardy in action, and ready when school life is finished to begin the work of educating himself.

The system places too much stress upon the examination as showing the literary qualifications of the teacher and his consequent fitness for his work. The examination tests knowledge, and having attained a certain percentage the candidate considers his calling and election sure. I believe that the persistent study and mastery of one branch will fit a person to teach any subject in which he will take the pains to prepare his work. Some of the things we ought to know regarding a candidate are: Under whom have you studied? What books are your favorites? Can you express yourself in clear, vigorous language? Can you govern by force of will? Can you awaken enthusiasm in the school? Can you inspire your pupils with the determination to do right, to lead virtuous lives, to be honest, God-fearing citizens? The tendency of the system is to ignore such questions and to be guided entirely by the number of questions answered correctly, and to repeat the operation year after year, relentlessly and without mercy. I do not object to the rigid examination of a young teacher, but when that is once passed the only conditions imposed should be growth.

Scholarly teachers ought to be the most successful; they always are when scholarship leads outward and upward; but height of intellectual stature alone does not enable a teacher to walk as Saul among his brethren. It is the highest work of the teacher to aid the youth in throwing up a highway wherein he may march to that royalty of manhood to which he was ordained of God.—*Journal of Education*, (Boston).

WHAT SUCCESSFUL TEACHING IMPLIES.

Ability to teach successfully implies ability to handle self, pupils and the subjects taught. This necessitates a knowledge of self. With many teachers this is the last thing considered. It will never do for a teacher to assume self-knowledge; it is the most difficult study in the world. The fact that we have been with ourselves so long, that our criticism of others is always based upon our assumed personal superiority, makes it improbable that we will admit our weakness. Pupils will know the teacher and pass judgment unsparingly, so will parents, and possibly school directors, and it is the part of wisdom for the teacher to know herself sufficiently to strengthen the weak places.

The teacher must know the pupils individually and thoroughly. With some teachers this is natural and easy. It is easy for all teachers with some pupils, but it is most important for teachers with whom it is not natural and with pupils with whom it is not easy. The teacher should know whether there are *physically* weak places that interfere with intellectual activity, with success in school, with moral development, with success in life. There are certain standard facts that should be known early about every child. Has he good eyes; good ears; appreciation of color? Has he physicial vigor; a good stomach; a good head,—free from aches,— a good nervous system? No lesson should be given that in any way aggravates any weakness.

The teacher should know the pupils *intellectually*. Who are dull? Who slow to perceive; to discriminate, to draw conclusions; to memorize; to recall? Who have difficulty in expressing themselves orally; in writing? All these and many other things are to be known by the teacher regarding the intellectual activity of the pupils. The teacher must know the pupils *morally*,—must know of their temper, jealousy, irritability, and sense of justice; tendency to truthfulness, obedience, and industry. All this and much more must the teacher know of the fundamentals of all the virtues.

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The teacher must know every *subject* taught, must have the foundation knowledge; must know its practical and philosophical relations; must know how to teach it skilfully. The teacher will probably answer promptly that he knows all this now, but in the present age of the world he is a bright man who can keep pace with the facts in geography, history, science, and business arithmetic, not to mention the latest and most effective methods.—*Journal of Education*, (Boston).

BETTER ELOCUTION.

There is nothing to be hailed with greater delight than the dying out among the good elocutionists and in the best schools of expression of the old time force, energetic emphasis, excessive gesticulation, fierce facial contortion, etc.

The time was when the reader believed he must *be* the character of which he read; that he must so carry his audience by his dramatic rendering, by his force, his magnetism that both reader and audience forgot everything in the sense picture presented before them.

We are now learning to distinguish between *reading* and *personating*. We are learning that the reader is simply the medium through which the thought of the author is brought out and transferred to the audience. We are learning that the reader is not, nor should he attempt to pose as the original source of the thought.

Too many readers do not discriminate between reading and acting and so offend good taste. The reader should, to be sure, make the author's thought his own; but he need not, and he should not, assume the rôle of the author in reading it.

The best reading is that which leaves much for the imagination to fill out; that which stimulates the listener to build up vivid pictures and enables him to formulate clear thoughts of what is set forth.

Oral expression is to reading what melody is to sound, what grace is to form, what color is to the landscape—it is the artistic element.

Let us avoid the dramatic—it is ridiculous off the stage.

Avoid mechanical force—it is as vulgar as haste.

EMPHASIS.

To a child of ordinary culture there is likely to be but one method of emphasis—the forcing, pounding method.

Teach him then that though this kind of emphasis is emphasis and though it is sometimes, indeed, often correct and necessary, yet it is the crudest, most rudimentary of all kinds of emphasis, the one least used by refined, scholarly readers.

Better than this is the emphasis gained by arresting the attention of the hearers by:

1. A gentle, insinuating *holding back* of the word.
2. A pausing *after* the word.
3. A *prolonging* of the vowel.

ILLUSTRATIONS.

1. "Truth forever on the scaffold, Wrong forever on the throne;
   Yet that scaffold *sways* the future, and behind the dim unknown,
   Standeth *God* within the shadow, keeping watch above his own."

2. "The unarmed Buddah, looking, without one trace
   Of fear or anger, in the monster's face,
   In pity said, "Poor *Fiend* —— even *thee* —— I love.
   Lo! —— as he *spake* —— the skytall terror shrank
   Into the form and fashion of a dove;
   And when the thunder of its rage was heard,
   Circling above him sweetly sang the bird:
   "*Hate* —— cannot conquer Love," so rang the song,
   And *Love* —— *unweaponed* —— conquers every wrong."

3. "Heaven is not reached by a single b-o-und;
   But we build the ladder by which we rise
   From the lowly earth to the vaulted sk-ie-s;
   And we mount to its summit r-ou-nd by r-ou-nd.

   "I count these things to be gr-a-ndly tr-ue,
   That a n-o-ble d-ee-d is a step towards God;
   Lifting the s-ou-l from the common sod
   To a p-u-rer air and a br-oa-der view.

   "We r-i-se by the things that are under our f-ee-t,
   By what we have mastered of gr-ee-d and g-a-in,
   By the pr-i-de dep-o-sed and the passion sl-ai-n
   And the vanquished ill we hourly meet.

   "We h-o-pe, we res-o-lve, we asp-i-re, we trust,
   When the morning calls to life and light,
   But our hearts grow weary, and ere the night
   Our lives are tr-ai-ling in sordid dust.

   "Wings for the angels, but feet for the men;
   We must borrow the wings to find the w-a-y;
   We may h-o-pe and res-o-lve and asp-i-re and pr-ay,
   But our feet must r-i-se, or we f-a-ll again.

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"Only in dr-ea-ms, is the ladder thrown
From the w-ea-ry earth to the sapphire wall,
But the dreams depart and the visions f-a-ll;
And the sleeper wakes on his pillow of s-t-o-ne."

Does it seem almost too much to expect the average pupil to appreciate, to understand, to reason out, to apply these differences.

Don't expect it. But memorize, repeat daily in concert some such poems as this—and await the result. Do you forget, or do you under-estimate that marvellous capacity in children for blind, unreasoning imitation? It is to the teacher his strongest ally. An ally that at once encourages us, and if we *apply* the psychology we all have learned—appals us when we realize what a weapon in it we hold to use for good or evil over the child.—*Popular Educator.*

PROFESSIONAL READING.

Teachers must look well to their reputation as readers of good books,—professional books. Lawyers, physicians, and clergymen are far ahead of teachers in this regard, and they are, largely in consequence, recognized as members of professions in the sense in which we aim to have teachers recognized. Take the highest view possible and the situation is humiliating as relates to the number of first class professional books sold in England, America and India.

Teachers give these excuses,—they cannot afford to buy them, they have no time to read them, they can neither appreciate them nor profit by the reading. As to the financial question it should be said that in every state and city there are many men and women who are paid sufficiently high salaries to make the expense no obstacle; and as to the poorly-paid teachers they need to read in order to be in a condition to demand, successfully, higher pay where they are, or to move on to other pastures. As to the time element, five pages a day would enable a teacher to read ten first-class books each year, and half the number would give a good pedagogical library in a few years, and would make the reader a wonder in most countries.

As to the lack of appreciation it may be said that the very thing such a teacher needs is the discipline, vigor, and awakening necessitated by grappling with the thoughts and sentences of men to whom professional phrases are as natural as their breath. It is not what you learn so much as it is the home-like feeling you have in the presence of the leading thinkers of the profession. The fact that it is hard work, that

you have to read slowly, that it is a strange atmosphere, is sufficient reason why you should devote a little time to such companionship daily.

We do not hesitate to say that any teacher of ordinary ability who will put *four annas and thirty minutes a day* into the wise purchase and reading of an educational paper and professional books will within three years get an advance in salary and professional promotion which make a financial return of from 200 to 400 per cent., not to mention the increased satisfaction, honor, and usefulness.—*Journal of Education*, (Boston).

ADVICE TO TEACHERS.

The following advice given to young teachers about to begin their first year's work, appears in *The New York School Journal*. It will probably be interesting to Indian teachers as well.

1. Consider your manner—your personal bearing. Let the teacher be sure to bear himself as a cultured human being, walking erect, looking at the people he talks with, speaking with a pleasant voice, and having engaging manners.

2. Consider the pupils as beings that must be interested in you, in themselves and in school work. Don't think they have got to come to school anyhow, and that if they are not interested it is because of their innate wickedness.

3. Put aside at once and for ever a feeling of antagonism with the pupils.

4. Try to arrange what you know about children and young human beings, and get it into a practical shape for use. Your success as a teacher, remember, will come from *your knowledge of children, your ability to interest and direct them*. So you must gather your knowledge of children under proper heads, as (1) Employment; (2) Incentives; (3) Management; (4) Training to Self-Government, &c. You should think over the matter a great deal. In a few days the novelty you are to the pupils will wear off, and then you must hold and direct them by your personal force.

5. Try to get hold of the idea of teaching. You know much about arithmetic; but do you know how to teach it? That is quite a different thing. You must get a good conception of teaching; it is not telling, it is not cramming; it is directing a mind that has an object of thought.

6. You must be sure to make many strong resolves that you will be an educator; that is, a scientific teacher. You should have at least one book on teaching, and read and study it.

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7. Don't worry over the order, or probably disorder, you have. See what the cause is, and remove the cause. If they walk heavily—it is because they have not been trained to walk lightly; train them. If they whisper, train them not to disturb others—don't scold at them, don't think they are particularly wicked, don't scowl. Tell them they disturb others, and train them not to do it. Don't ask John if he is whispering, for it will give him a good chance to lie.

8. Be pleasant and bright. If you are half frightened to death, don't let anybody know it. Don't be discouraged at the result of the first day. Praise everybody you can. Don't have any prejudices against those who have poor clothes. See to the outhouses; keep them in order. Have the school kept clean; ornament all you can. Make the scene of your work attractive.

HINDU ARITHMETIC.

In the April number of *Knowledge*, the late Mr. R. A. Proctor's paper, describes Indian arithmetical methods, and accounts as follows for the extreme rapidity with which Indian lads can perform mental calculations.

The arithmetical system of Europe was revolutionized by India when the so-called Arabic figures, which we daily use, were borrowed by Arab traders from the Malabar coast, and by them introduced into Europe. It was Indian intelligence which devised the method of changing the values of the numeral symbols according to their positions. This ingenious conception rapidly superseded the older methods, and gave enormously increased facility to arithmetical computations as compared with the Greek and Roman and the older Arabic methods. Indian school-masters employ a number of terms unknown to English teachers. These have been invented for the purpose of facilitating calculation, and the astonishing results achieved cannot be understood without comprehending the terms employed. The strangeness of the names of the figures and fractions arrest the attention of every student of Hindi. Few attempt to master the fractions; and there are some who, after many years' residence in India, cannot repeat even the numbers from one to a hundred. Indians use monosyllables similar to ours from 1 to 10; but from that point the words are built on the model of "1 and 10," "2 and 10," "3 and 10," etc., up to "8 and 10," but the word 19 means "minus 20." After 20 the same method is continued; "21" being impossible, the form is invariably "1 and 20" "2 and 20," up to "minus 30," "30," "1 and 30," and so on. This

method of nomenclature goes back to remote antiquity, for the old Sanscrit language presents the same peculiarity. The object is to facilitate computation, for, in reckoning, the mind has to deal with the even tens, the simplest of all figures to multiply. Thus the question "9 times 19" is not a simple one to an English child; but the Indian boy would be asked "9 minus-twenties." In an instant he knows that he has only to deduct 9 minus quantities from 9 twenties, and the answer 171, comes before the English boy has fully realized the question. The formidable difficulty of the 9 is thus completely got rid of by a mere improvement in nomenclature. It is, however, with respect to fractional numbers that the advantage of the Indian system of nomenclature becomes more conspicuous, when once understood. The fractional terms are *prefixed* when used in combination with whole numbers, the object being to present the special modification to the mind before the number itself is named. Complicated as this nomenclature appears at first sight, its difficulties disappear when brought to the test of practice. It is the outcome of centuries of practical experience, and the thoughtful application of means to an end. It will be sufficient to illustrate the use of these words, and the extraordinary arithmetical facilities they afford, if the use of *paune* is explained, that is, $\frac{3}{4}$, that being the fraction which the English child has most trouble with. The Indian boy knows no such expression as "two and three-quarters;" in fact, the term "three-quarters," in combination with whole numbers, has no existence in his language. His teacher resorts to the same device as has been explained when speaking of the figure 9: he employs a term which implies "minus." By this process $2\frac{3}{4}$ becomes *paune tin*, that is, "minus 3," or a quarter less three," and in the same way $3\frac{3}{4}$ is *paune char*, that is, "minus 4;" and so on. Precisely the same plan is adopted with reference to the term *sawa* which implies "one quarter more," thus $3\frac{1}{4}$ is *sawa-tin*="*plus* 3," $4\frac{1}{4}$ is *sawa-char*="plus 4," &c. It will now be seen that the *whole* numbers form centres of triplets, having a minus modification on one side, and a plus modification on the other. This peculiar nomenclature will be clearly comprehended by the following arrangement:—

$2\frac{3}{4}$ paune-tin — 3	$3\frac{3}{4}$ paune char — 4	$4\frac{3}{4}$ paune panch — 5
3 " tin 3	4 " char 4	5 " panch 5
$3\frac{1}{4}$ sawa-tin + 3	$4\frac{1}{4}$ sawa char + 4	$5\frac{1}{4}$ sawa panch + 5

In multiplying these fractions, therefore, the Indian boy has to deal with only the minus and plus quantities. A simple instance will illustrate this. "7 times $99\frac{3}{4}$" would be a puzzle to an English child, both on account of the lumbering phraseology, and the defective arithmetical process he is taught to employ. The Indian boy would be asked,

sat paune sau? three words meaning "seven minus-hundreds?" The very form of the question tells him that he has only to deduct 7 quarters from 700, and he instantly answers 698¼. Equal facility is found with any similar question such as "5 times 14¾?" The Indian boy is asked *panch paune-pandrah? i.e.*, "5 minus-fifteens?" As the words are uttered he knows that he has only to deduct 5 quarters from 5 fifteens; and he answers at once, *paune shau hattrah, i.e.*, "a quarter less four and seventy" (73¾). Some Europeans have sought to account for the surprising results attained by Indian children, by attributing them to special mental development due to ages of oral instruction. It is perfectly true that Indians rely more on their memories than on artificial reminders, and no one can come into contact with the people without being struck by their capacity for remembering. It is well-known that many of the ablest men the country has produced could neither read nor write; but that they hardly missed these accomplishments, for their minds were frequently stored with more information, which was more ready to their command, than possessed by the majority of book students. It is well-known that Ranjit Singh could neither read nor write, but he knew all that was going on in every part of a kingdom as large as France. He was an able financier, and knew at all times accurately the contents of all his treasuries, the capacities of his large and varied provinces, the natures of all tenures, the relative powers of neighbours, the strength and weakness of the English, and was in all respects a first-class administrator. "We commit the mistake of thinking that the means of knowledge is knowledge itself. This induces us to give all the honor and prizes to reading and writing, and leads us to despise people, whatever their real attainments may be, who have not acquired the knack of putting information on paper. It ought to modify our opinions on this point to reflect that the architectural triumphs of India were nearly all built by men who could neither read nor write." Another illustration of dependence upon memory instead of upon paper can be found in the Indian druggist, who will have hundreds of jars, one above another, from floor to ceiling, not one of them marked by a label or ticket, yet he never hesitates in placing his hand on the right vessel wherever a drug is required. The same, to us, phenomenal power of memory is shown by the ordinary washermen, who go round to houses with their donkeys, and collect the clothes, some from one house, some from another. These they convey to the river and wash and, in returning with the huge pile, never fail to deliver each particular article to its rightful owner. The Indian boy's first task is necessarily to commit to memory the names of the figures from 1 to 100. He is next taught that there are nineteen places for figures and their names. These correspond to our

units, tens, hundreds, etc.; but the monosyllable acuteness in the names of the higher numbers is his distinct advantage. What we call the multiplication table thus begins. In England the multiplier remains constant, and the multiplicand changes: thus children repeat "twice one two; twice two four; twice three six," etc. In India the boy is taught to say "one two, two; two twos, four; three twos, six," etc., his multiplier changing, while the multiplicand remains fixed. Another peculiarity is that he begins at 1 not at 2; and this furnishes him with a series of most useful collective numbers. Here again, the English language lacks terms to translate the first table, but an idea may be gained from the following attempt: one unity, one: one couplet, two; one triplet, three; one quadrant, four; one pentad, five, etc. In learning these tables, the boy is not carried beyond 10; that is, he goes no further than "two tens, twenty," "three tens, thirty," etc., but to make up for that forbearance, he is carried on in this process of multiplying figure by figure not only to 12, or up to 20, but he goes on through the thirties, and does not make his first halt until he gets to "ten forties," four hundred. In achieving this result something more than memory is brought into play, for he is taught to assist his memory by reference from one table to another; thus, the first half of the six table is contained in the three table, etc. A short supplementary table is next taught, beginning at 11 × 11 to 20 × 11, and then proceeding to 11 × 12 to 20 × 12 and so on up to 20 × 20. This method reduces considerably the tax on the memory; for one-half of the table is obviously the same as the other half, and therefore only half calls for special effort. The boy has now committed to memory the multiplication of every figure from 1 × 1 to 20 × 20, and in addition he knows the multiplication of every figure up to 40 by the ten "digits." It will be observed that both tables end at 400 (10 × 40 and 20 × 20); in fact, 4 is the most important factor in Hindu arithmetic, all figures and fractions being built upon multiples and fractions of it. At this point, instead of practising on imaginary sums in the hope of learning arithmetic empirically, the Indian lad immediately proceeds to tables of fractions, the first being the multiplication of every figure from 1 to 100 by ¼. Here again, ¼ would be the last fraction we should attempt; but in India it is the first, and, by the superior system of nomenclature there in use, it is a very easy affair. The boy, knowing the multiplication of the whole numbers, is taught to deduct the half of the half of ¼ and the thing is done. Memory is assisted by observing that every multiple of 4 is a whole number, and that the number below it will always be a *sawa* of the next lower figure, and the number above it always a *paune* of the next higher figure. Thus in answer to the question ¼ × 36, the Indian boy says mentally, 18, 9, 27;

he also knows that 36 is the ninth multiple of 4, and by immediately deducting 9 can get his 27 that way also. Knowing also that 36 is a multiple of 4 yielding 37, he knows that 35 will yield *sawa chhabbis* ($26\frac{1}{4}$), and that 37 will yield *paune atha*, that is (—28=27). In this way three-fourths of the table is a matter of logical necessity resting on the elementary table previously acquired. In the next table the boy is taught to multiply every figure from 1 to 100 by $1\frac{1}{4}$. This of course is precisely the reverse of the last; the $\frac{1}{4}$ is ascertained and added instead of being deducted. Here again, the multiples of 4 are whole numbers; but the figures preceding result this time in a *paune*, and those next following in a *sawa*. This table also costs but little effort when thus taught. The next table teaches the boy to multiply from 1 to 100 by $1\frac{1}{2}$, and of course means simply adding half of the multiplier to the figure itself. The next step, multiplying from 1 to 100 by $1\frac{3}{4}$, is achieved by simply adding three-quarters of the multiplier to the multiplier itself. The "three-quarter" table has been already acquired by the boy, and he has therefore only to add any given multiplier to it. Thus, if asked, "What is 27 times $1\frac{3}{4}$" he knows that 27 *paunes* are $20\frac{1}{4}$; he has therefore only to add this to the 27 itself to get $47\frac{1}{4}$ as the instant answer. The boy is next exercised in multiplying 1 to 100 by $2\frac{1}{2}$, and he is taught to do this by adding half the multiplier to the "twice times" table. Then follow similar tables, multiplying by $3\frac{1}{2}$, $4\frac{1}{2}$, and $5\frac{1}{2}$; and the results are arrived at instantaneously by adding to the "three-times," "four-times;" and "five-times" tables half the multiplier in every case. In all these tables the rapidity and simplicity is in great part due to the terms employed. The boy is not asked to "multiply seventeen by three and a half," or "what is three and a half times seventeen?" or puzzled by any other form of clumsy verbosity. The terms he uses allow him to be asked "*sattarh hunthe*," "seventeen three-and-a-half." His elementary table has taught him that $17 \times 3 = 51$, and he knows that he has only to add half 17 to that, and the sum is done. The money table completes an Indian boy's most elementary course of arithmetic.

THE DULL BOY.

The teacher has much responsibility for the defective classes in the school. Once started right, the average child needs little special attention. With lessons carefully assigned, books and material provided, recitations well conducted, a child of ordinary intelligence will have little difficulty in making his way successfully. But with the defective classes the case is different. There are children physically, mentally,

and morally defective, who will inevitably have a hard time in school and out, in childhood, boyhood, youth, young manhood, and mature life. The school must help these.

The teacher's first business is to learn which pupils are defective and in what respect. *Physically*, each must be studied, to learn of nervous weakness, digestive derangement, cranial abnormalities; *intellectually*, to learn of power of perception, of attention,—to that which is seen, seen and heard, heard, read,—of imitation, memory, recollection, quickness to answer, keenness in catching a question, and credulity; *morally*, to learn of docility, irritability, passionate tendency, obedient instincts, industry, and truthfulness. The best work done for the bright boys is indirectly through that which is done for the defective classes. The quick child sees just enough to slide over minute and important details which you and he assume are understood.

There has been no careful observation, so far as we can learn, in this country, but a beginning has been made in London, and a scientific examination has been made in all grades of the public schools, in pauper, industrial, and deaf and dumb schools. From these investigations a few interesting facts appear. The percentage of dull boys is twice as large as of dull girls. But the proportion of dull pupils is far below what the average teacher would have you suspect when explaining why her classes do not show better results. The largest per cent. of the dullness is in the fifth school year, in which one in nineteen is "a dull boy." The average is about one in thirty-five. Twice as many nervously weak boys as girls were found.

There is a call for the teacher's activity in the rear, rallying, reorganizing, bringing to the front the defective classes. The influence upon the school as a whole, upon the average pupil in particular, is magical. In this way the rear line, instead of dragging the whole school back, is pushing it forward.

Two things are needed: the closest sympathy, and the clearest view of relations. The most expert teacher of deaf and dumb children we have ever known, one who makes them read the lips as quick as thought, and speak fluently and naturally, takes the little ones close to herself and places either hand gently upon her side, and then speaks with a clearness and resonance that makes her form vibrant with the word, and the little one comes into vital sympathy with her through the varied vibrations. The possibilities of intellectual and moral touch are even greater.—*Journal of Education*, (Boston).

UNIVERSITY OF MADRAS.

B.A. DEGREE EXAMINATION, 1890-91.

Thursday, 20th November 1890—10 A.M. *to* 1 P.M.

ENGLISH POETRY.

Shakespeare, *Henry VIII.*; Wordsworth, *The White Doe of Rylstone*; Tennyson, *Guinevere, Harold*.

N.B.—The answers to Part I. and Part II. are to be written in separate books.

PART I.

I. Take either *Henry VIII.* and *Guinevere* or *Harold* and *The White Doe*: write a critical essay, of about three pages, showing how religion and ecclesiasticism bear upon the stories and influence the minds and actions of the characters. (*Note.*—This essay should be carefully thought out and put together; marks will be given for style.)

II. What is the great defect in the dramatic construction of *Henry VIII.*, and what inference do you draw from it regarding the authorship?

III. "Every character in a play should help in unfolding the plot, directly or indirectly, and every character that does not fulfil this condition is an encumbrance." From this point of view discuss briefly the propriety of introducing—*The three gentlemen*; *An old lady*; *Gamel*; *Wulfnoth*.

IV. Re-write the following passage in verse, punctuating it, marking the accents, dividing off the feet, and placing the cæsura. (*Note.*—The words are in their proper order.) "You're meek and humble mouthed you sign your place and calling in full seeming with meekness and humility but your heart is crammed with arrogancy spleen and pride you have by fortune and his highness' favours gone slightly o'er low steps and now are mounted where powers are your retainers."

V. Explain the following:—

1. . . . . . . The wolf
   Muddied the brook and predetermined all.
2. Far back, far back, my mind must go
   To reach the well spring of this woe.
3. The sleepy lance.
4. The running banquet of two beadles.
5. Come pat betwixt too early and too late.
6. A madness of farewells.
7. Come, come, my lord, you'ld spare your spoons.
8. Narrowing nunnery walls.
9. . . . . many
   Have broke their backs with laying manors on'em.
10. Their anthems of no church how sweet they are.

PART II.

VI. 1. Put into *clear simple* English the first of the following passages, and also any one (one only) of the other three:—

(*a*) . . . . . . If I am
Traduced by ignorant tongues, which neither know
My faculties nor person, yet will be
The chronicles of my doing, let me say
'Tis but the fate of place, and the rough brake
That virtue must go through. We must not stint
Our necessary actions, in the fear
To cope malicious censurers; which ever,
As ravenous fishes, do a vessel follow,
That is new trimmed, but benefit no further
Than vainly longing. What we oft do best,
By sick interpreters, once weak ones, is
Not ours, or not allowed; what worst, as oft,
Hitting a grosser quality, is cried up
For our best act.

(b) . . . . Wisdom when in power
And wisest, should not frown as Power, but smile
As kindness, watching all, till the true *must*
Shall make her strike as Power; but when to strike—

(c) . . . . . Turn not thou
Thy face away, but rather let me be
King of the moment to thee, and command
That kiss my due when subject, which will make
My kingship kinglier to me than to reign
King of the world without it.

(d) The garden pool's dark surface, stirred
By the night insects in their play,
Breaks into dimples small and bright;
A thousand, thousand rings of light
That shape themselves and disappear
Almost as soon as seen.

2. From the first piece make a list of all words of classical origin setting opposite each its nearest equivalent of English origin.

VII. Refer to each occasion on which a dream or vision occurs, and indicate the significance of any two.

VIII. Name and describe the metres of *Guinevere* and *The White Doe*, and the principal variations on them with illustrations.

IX. 1. What were the vows imposed by Arthur upon his knights?

2. What advice was given to Harold, and by whom, before the battle of Senlac, and what was his reply?

3. What was said, and by whom, respecting:—true repentance; the manner in which great people have to bear their sorrows; mockery.

X. Quote or distinctly refer to any two metaphors or similes in *Harold*, and any two in *The White Doe*, explaining and discussing them.

Thursday, 20th November 1890—2 *to* 5 P.M.

ENGLISH PROSE.

Hallam, *The Middle Ages, Chapter IX.*; Carlyle, *The Rectorial Address*; Myers' *Life of Wordsworth*.

[N.B.—The answers to Part I. and Part II. are to be written in separate books.]

PART I.

I. Point out the changes by which, according to Hallam, the classical Latin language passed into the modern languages of France, Spain, and Italy.

II. To what causes does Hallam ascribe the preservation of ancient learning and civilisation throughout the Middle Ages.

III. Hallam mentions five virtues as requisite to the character of a knight who embodied the perfect idea of chivalry. Mention those five virtues and describe any three of them.

IV. Illustrate the statement of Macaulay that "the character of Mr. Hallam's mind corresponds strikingly with that of his style."

V. 1. Give Carlyle's definition of (a) *diligence*, (b) *wisdom*, (c) *reverence*, (d) *holy*.

2. Explain the proverbs:—

(*a*) "He that builds by the way-side has many masters."

(*b*) "An ounce of mother wit is worth a pound of clergy."

PART II.

VI. 1. How did the early stages of the French Revolution impress Wordsworth?

2. How does Myers account for that impression?

VII. Name and briefly describe each of the works of Wordsworth referred to in the following extracts:—

1. "An epic poem on his own education."

2. "The *locus classicus* or consecrated formulary of the Wordsworthian faith."

3. "The last considerable production of Wordsworth's genius."

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VIII. Explain :—

1. "They have given an example of substantial comfort strenuously won: of home affections intensified by independent strength; of isolation without ignorance, and of a shrewd simplicity; of an hereditary virtue which needs no support from fanaticism and to which honour is more than law."

2. "The wind of his emotions blew right abaft, he swam smoothly in the stream of his nature, and lived but one man."

IX. What was Wordsworth's theory as to the language to be used in poetry? Criticize this theory.

X. State as precisely as you can the two philosophical lessons which Wordsworth drew from an introspection of the memories of his childhood.

XI. Draw a comparison between Scott's method of observing nature and Wordsworth's.

Friday, 21*st November* 1890—10 A.M. to 1 P.M.

ENGLISH LANGUAGE AND LITERATURE.

N.B.—The answers to Part I. and Part II. are to be written in separate books.

PART I.

I. Paraphrase:

Nor happiness, nor majesty, nor fame,
Nor peace, nor strength, nor skill in arms or arts,
Shepherd those herds whom tyranny makes tame.
Verse echoes not one beating of their hearts;
History is but the shadow of their shame;
Art veils her glass, or from the pageant starts,
As to oblivion their blind millions fleet,
Staining that heaven with obscene imagery
Of their own likeness. What are numbers knit
By force or custom? Man who man would be
Must rule the empire of himself; in it
Must be supreme establishing his throne
On vanquished will, quelling the anarchy
Of hopes and fears, being himself alone.

II. 1. To which division of the Teutonic group of languages does the English language belong? What are the other languages in the same division?

2. Describe the principal changes in the vocabulary and grammar brought about by the Norman Conquest.

III. 1. Write short notes on the etymology of the following words:—*alms*, *near*, *first*, *many*, *four*, and *worst*; and on the changes of meaning undergone by the following words:—*caprice*, *libertine*, *innocent*, *silly*, *legend*, *dunce* and *journal*.

2. Remark on the letters in italics in the following words:—*child*ren, thun*d*er, god*ly*, fore*m*ost, far*th*er, ne*a*t and be*st*.

3. Write grammatical notes on the words in italics in the following:—
(*a*) Villain, I say, knock *me* here soundly.
(*b*) And I, as one, consent with *ye* in all.
(*c*) *It* knighthood shall fight all *it* friends.
(*d*) Yes, you have seen Cassio and *she* together.

IV. 1. What is meant by phonetic spelling? What are the arguments for and against *its* being adopted in place of present usage?

2. "All languages tend to clear themselves of synonyms as intellectual culture advances."—*De Quincey*. Illustrate this passage by examples from the English language.

3. Give instances of words harmless once that have assumed a harmful as their secondary meaning.

PART III.

V. 1. "Poetry and the poetic form of expression naturally precede prose."—*Matthew Arnold*. Briefly discuss this and draw your illustrations from English literature.

2. Give a short account of the rise of the English drama.

VI. 1. Mention the authors of eight of the following, and give the periods during which they flourished:—*Vision of Piers the Plowman; Letters on a Regicide Peace; The Hind and Panther; Colin Clout; The Virginians; The Beggar's Opera; Adam Bede; The Liberty of Prophesying; The Corsair; Oliver Twist; The Ormulum; She Stoops to Conquer*; and *The Mirrour for Magistrates*.

2. What were the circumstances under which either the *Dunciad* or *English Bards and Scotch Reviewers* was written?

3. Mention three great elegies in English literature and state the subject of each.

VII. How do you account for the rapid growth of English literature from the middle of the 18th century?

VIII. Show that the history of English literature is a faithful record of the social and political condition of the country, illustrating your answer from the period of the Restoration.

Friday, 21st November 1890—2 *to* 3-30 P.M.

ENGLISH COMPOSITION.

Write an essay on *one* of the following subjects:—

1. The decay of the study of Sanskrit in India.
2. The dignity of manual labour.
3. War.

PROCEEDINGS OF THE DIRECTOR OF PUBLIC INSTRUCTION.

References.—In the opinion of the Acting Director, Presidents of Local Board and Chairmen of Municipalities are not entitled to call upon the Assistant Inspector to explain delay in replying to their references.—*Pro. No.* 10795 *of 24th October* 1890.

Results Schools.—When publishing the combined lists of Results schools this year, it was considered that the rule which lays down that grants to new schools should be calculated from the 1st January preceding the year for which such schools were registered for aid was not favourable to managers of schools. The Inspecting Officers were therefore informed in a footnote to the published list that grants to new schools should be calculated from the date of their establishment or from the date from which such schools complied generally with the conditions of aid. This led to some misapprehension on the part of Inspecting Officers who have submitted various questions for specific orders. To meet all cases thus raised, the Acting Director rules as follows:—

Grants to new schools should be calculated from the date of their establishment or from the date on which they became eligible for aid, provided that the period for which grants are allowed does not in any instance exceed twelve months.

2. This rule applies to schools receiving aid from Local and Municipal funds also.—*Pro. No.* 1078 *of 24th October* 1890.

Vaccination Department.—Read the following letter from the Acting Sub-Assistant Inspector of Schools, Cuddappah Range, to the Assistant Inspector of Schools, Fifth Division, dated Badvel, 5th July 1890, No. 379:—

In submitting, herewith, a petition from G. Srinivasa Row, Results School Teacher, Proddutur, complaining of the refusal of the Treasury Officer to cash this office certifying memorandum No. 113, dated 17th January 1890, for want of vaccination certificate, I have the honor to bring to your notice the following:

2. The teacher says that the pupils referred to were vaccinated twice, but without any visible effect.

3. The Medical Officer to whom they were referred would not certify them as "vaccinated."

4. The Treasury Officer would not pass the certifying memorandum unless the pupils therein mentioned were certified to have been vaccinated.

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5. In my humble opinion, the object of the condition of vaccination being simply the spread of vaccination through the agency of village teachers, they cannot be held responsible either for the peculiar constitution of their pupils or for the defective operation of the Vaccine Department. The refusal of grant in this instance will be a great hardship to the teachers concerned.

6. In the Fourth Division grants are being given on behalf of pupils who are reported "to have just been vaccinated."

7. I therefore request that you will be pleased to move the subject and obtain sanction for payment of grant in this and similar cases.

No. 3715.

Submitted to the Inspector of Schools, Central Circle, for favor of orders.

(Signed) MAHOMED AUZAM,
Ag. Asst. Inspector of Schools,
Fifth Division.

HARPANAHALLI,
24th August 1890.

No. 5552.

Submitted to the Director of Public Instruction for the favor of orders.

2. I think that pupils, in whose case vaccination fails to be effective, should be considered as protected children, at least for the purpose of passing grants.

(Signed) C. BICKLE,
Acting Inspector of Schools,
Central Circle.

MADRAS,
27th September 1890.

The question raised in the above correspondence is referred to Inspectors of Schools, Inspectresses of Girls' Schools, Assistant and Sub-Assistant Inspectors of Schools for opinion.—*Pro. No.* 11175 *of 5th November* 1890.

Administration Reports.—Read the following Proceedings of the Madras Government, in the Local and Municipal Department, dated 11th October 1890, No. 2605 L. :—

No. 2605-L., Local and Municipal.

Order.—Presidents of District Boards are requested to submit with future Administration Reports a statement in the annexed form, showing the qualifications of the teachers employed in the schools maintained and aided from Local Funds :—

FORM.

Schools.	Number of passed teachers holding			Number of unpassed teachers.	Total.
	Normal certificates.	Ordinary certificates.	General Education certificates.		
Local Fund Schools.					
Secondary					
Primary					
Aided Schools.					
Secondary					
Primary					
Total...					

2. Information regarding the year 1889-90 should be submitted as soon as possible.

(True Extract.)

(Signed) J. F. PRICE,
Chief Secretary.

11th October 1890.

Communicated to the Inspectors of Schools, Inspectresses of Girls' Schools, Assistant Inspectors of Schools, with spare copies for Sub-Assistant Inspectors.—*Pro. No.* 11181, *of 5th November* 1890.

Oriental Manuscripts Library.—During the year, the Government Oriental Manuscripts Library was removed under G. O., dated 23th February 1890, No. 111, from the Presidency College to the room formerly occupied by the Superintendent, Government Press, in the Fort. The room is reported to be not well adapted for the library, the space being limited and the lighting defective.

The Acting Director is glad to note that the routine work of the library has been caried on satisfactorily. It is hoped that the revised descriptive catalogue will be completed before the end of the current year. The decrease in the number of visitors is attributed to the transfer of the library to Fort St. George, which will, it is hoped, not be permanent. It may, however, be observed that the former position of the library led to its being visited often, merely as a matter of form, by almost every visitor to the Presidency College. In its present position it will rarely be visited except by those who mean to profit by the rare and valuable works which it contains. The diminution in the number of visitors need not be taken as a correct measure of the fall of the library in the public estimation.

The grant of Rs. 600 annually allowed for the purchase and transcription of valuable manuscripts was fully utilized during the year. Of this, a sum of Rs. 87-8-0 was expended on the removal of the library to the Fort, and Rs. 228 in recopying and rebinding manuscripts injured in the removal.

The Acting Director appreciates highly the zealous and successful efforts of Dr. Oppert and his staff to enrich the library. Two collections or Sanskrit manuscripts, 192 in number, were added, 48 of which were rare works which the library did not previously possess. It is observed that 13 rare manuscripts obtained from Pudukóta were transcribed. The details of the manuscripts are given in the appendix to the report.

From the statement given under para. 10 of the report, it is gathered that 2,150 manuscripts have been added to the library since 1883-84.

The library was visited by 803 persons in the year against 888 in the previous year. Of these, 364 were readers, 256 copyists and 183 visitors. The corresponding figures in 1888-89 were 505, 180 and 203. Seven printed works and publications were received for the library during the year against 8 in the previous year.—*Pro. No. 833-BB. of 25th September 1890.*

Native College, Madura.—Read Tabular Inspection Report on the Native College, Madura, dated 23rd September 1890, No. 5960.

Teaching Staff.—The teaching staff consists of six Graduates, three F.A.'s, four Matriculates, three Fifth Grade men, and six unpassed teachers. Five of these are normally trained and 10 hold Ordinary certificates. Annaji Rau, B.A., would do well to undergo training in the Teachers' College; and the other Graduate teachers should pass the L. T. Degree examination at the earliest opportunity. C. A. Sundra Sastri and S. Raghavaiyar should be examined by the Inspector in Teaching Power. The Gymnastic teacher should secure a certificate of qualification from the Physical Training and Field Games' Association, Madras. The Inspector is satisfied in a general way with the teaching capacity of all the masters and their work during the past year. He should, however, have reported on their work individually.

2. *Strength of Classes.*—It is satisfactory to observe that the attendance* has more than doubled since last inspection, the increase extending to all the classes. The average daily attendance was, however, unsatisfactory. It is hoped that it was not due to any laxity of discipline. Brahmans form the majority (68·8 per cent.); next follow the Sudras (20·5 per cent.); 5·9 per cent. are Muhammadans. The institution is, therefore, fairly representative. The paucity of artisans is regretted.

* Increased from 224 to 504.

3. *Results of Examinations.*—The results of the Matriculation and the Middle School examinations were a decided improvement on those of the previous year; and at inspection, the pupils seem also to have done fairly well. The use made of the library is also satisfactory.

4. The college is now located in the Government building formerly occupied by the Government College, on the entry of Rs. 315 under the item of rent in table (a) is therefore not understood. The accommodation seems insufficient for present requirements. Should the present increased attendance continue without fluctuation, the Director will be prepared to consider favorably any proposal to extend the building. The Inspector's suggestions with respect to the gymnastic apparatus should be carried out.

5. The total cost of the institution during the last official year was Rs. 11,198, the income being Rs. 12,030; there was thus a surplus of nearly Rs. 832. The fee income covered more than three-fourths of the expenditure.

6. The general condition of the institution and its satisfactory financial position are creditable to the management.—*Pro. No. 11302 of 7th November 1890.*

HIGHER EXAMINATIONS IN SCIENCE, ART, INDUSTRIES AND COMMERCE—OCTOBER 1890.

The following Candidates are declared to have passed the Higher Examinations in Science, Art, Industries and Commerce held in October 1890:—

Number in order of merit.	Register number.	Name of Candidate.	Where educated.	Maximum. Marks, 100. Marks obtained.
		SYLLABUS No. 58—PHONOGRAPHY.		
		FIRST CLASS.		
1	29	Thomas Sterling ...	Bishop Corrie's Grammer School, Madras ...	78
2	20	Cuduvancheri Appusundra Chetti.	Chengalvaraya Naicker's Commercial and Technical High School, Madras.	69
3	19	T. S. Srinivasa Raghava Charlu.	Do. do. ..	67
		SECOND CLASS.		
1	17	Tiruvanmuir S. Krishnaswami Aiyar.	Chengalvaraya Naicker's Commercial and Technical High School, Madras.	59
2	60	Daniel Devadoss ...	Private study ...	51
3	4	Kumbakonum Krishnama Chari.	Chengalvaraya Naicker's Commercial and Technical High School, Madras.	50
4	58	Natha Namberumal Chetti	Private Study	48
		THIRD CLASS.		
	10	Cacarla Vasudevayya ...	Chengalvaraya Naicker's Commercial and Technical High School, Madras.	38
	18	R. Rameswara Thiruvadi.	Do. do. ...	38

(By order.)

Office of the Comr. for the U. C. S. Examinations, Madras, 19th November 1890.

E. H. ELLIOT,
Secretary.

EDUCATIONAL NOTIFICATIONS.

RATES OF RESULTS GRANTS DURING THE YEAR 1891-92.

The Director of Public Instruction hereby notifies, for the information of Managers of Schools, that during the year 1891-92 results grants from Provincial Funds will be paid in all the districts of the Presidency at the maximum rates fixed in the Grant-in-Aid Code.

Office of the Director of Public Instruction, Madras, 10th November 1890.

H. B. GRIGG,
Director of Public Instruction.

NOTIFICATION.

Fort St. George November 11, 1890.

His Excellency the Governor in Council is pleased to notify that henceforth the Preliminary Test in Subject No. 34, Forestry, prescribed in Notification No. 25 of the 31st March 1886, relating to the Higher Examinations in Science, Art, Industries and Commerce, will take the place of Departmental Test Examination prescribed by Forest Department Code, para. 56, so far as clauses (*c*), (*d*) and (*e*) are concerned.

This cancels the Notification dated 18th February 1890, No. 24, Educational, published at page 130, Part I of the *Fort St. George Gazette* of the 18th February last.

NOTIFICATION.

Fort St. George, November 25, 1890.

The Right Honorable the Governor in Council hereby notifies that para. IV of Notification No. 48 relating to the Upper Secondary Examination has been amended as follows:—

Candidates who have passed the compulsory subjects of the Upper Secondary Examination shall be admitted to secondary training schools and subsequently to the Teachers' Test of the Secondary Grade, Lower, to the College of Agriculture, to the Junior Department of the Medical College, and to the School of Arts. In the selection of candidates for admission into the Engineer Subordinate Class of the College of Engineering, preference shall be given to those who have secured a pass in the Upper Secondary Examination.

Exceptions.—The above rule will not apply to candidates seeking admission into the Junior Department of the Medical College from the Northern Circars and the Ceded Districts until 1st January 1895, and to those from other districts until 1st January 1893.

Matriculates and persons who have passed the Higher Examination for Women prior to the 31st December 1892 shall be eligible for the Teachers' Test of the Secondary Grade, Lower.

J. F. PRICE,
Chief Secretary.

List of Subscriptions received by the Superintendent, L. A. Press, Madras, on account of the "Journal of Education," from 1st to 28th November 1890.

		RS.	A.
K. P. Sankara Menon, Esq., Madras	For 1889 ...	4	8
Do. do. do. ...	For 1890 ...	4	8
Dr. G. Oppert, Madras	do. ...	4	8
W. Ramiah Esq., Ernakulum	do. ...	4	8
V. Krishnamacharry, Esq., Madras	do. ...	4	8
Head Master, L. F. High School, Dharapooram ...	do. ...	4	8
Head Master, Mappilla Normal School, Tellicherry	Jan. to April 1890 ...	[illegible]	14
N. Jacob Pillay, Esq., Chittoor	Aug. to July 1891 ...	4	8
President, Taluk Board, Arni	do. ...	4	8
Head Master, Native Middle School, Triplicane	do. ...	4	8
Head Master, Municipal High School, Anakapalli,	July 1890 to June 1891 ...	4	10
Head Master, St. Antony's High School, Negapatam	do.	4	8
Chairman, Municipal Council, Madura ...	do. ...	4	8
Head Master, Civil Orphan Asylum, Egmore	April to Sept. 1890 ...	2	8
Revd. Mother M. Bonaza, Secunderabad	... April 1890 to March 1891 ...	4	8
Vencatakrishna Iyengar, Sundrapandiapuram, Tenkasi,	May 1890 to April 1891	4	8
D. S. Krishnasawmy Iyer, Coimbatore	... April 1890 to March 1891 ...	4	8
President, District Board, Nilgiris ...	May 1890 to April 1891 ...	4	8
President, District Board, Trichinopoly	June 1890 to May 1891 ...	4	8
P. Subramania Iyer, Esq., Head Master, Vernacular Normal School, Trichoor,	Nov. 1890 to Oct. 1891 ...	4	8
Manager, St. Antony's School, Pudupet, Madras	do. ...	4	8
Mr. J. F. Valladares, Bandora ...	Sept. 1890 to Aug. 1891 ...	4	8
President, Taluk Board, Naidupett ...	July 1890 to June 1891 ...	4	8
Rev. J. M. Goldsmith, Manager, Harris School, Royapettah	For 1891 ...	4	8
Head Master, A. B. M. High School, Ongole, Nellore ..	do. ...	4	8
A. Narasimha Iyengar, Esq., Mysore	...	4	8
	Rupees...	112	8